

PATENT CLAIMS

1. A cleaning device for a conveyor belt (2) for installation essentially transverse to the longitudinal direction of the conveyor belt (2), which cleaning device comprises a supporting structure (3) adapted to hold the cleaning device in place across the conveyor belt (2), the belt scraper covering essentially the whole width of the conveyor belt (2) and consisting of a plurality of individual cleaner segments (1') each of which consists of a body (7) with a scraping face (4), which scraping face (4) rests against the conveyor belt (2),
characterised in that the scraping face (4) on each of the segments (1') is elastically connected to the supporting structure (3), the number of segments (1') is relatively great and all the segments (1') are covered by a flexible material.
2. A cleaning device according to claim 1,
characterised in that the scraping face is directed towards the conveyor belt.
3. A cleaning device according to claims 1-2,
characterised in that the cleaning device is provided with one or more adjusting devices for adapting the cleaning device to the curve of the drum.
4. A cleaning device according to claims 1-3,
characterised in that the scraping face (4) is reinforced in the connection between the supporting structure (3) and the scraping face (4).
5. A cleaning device according to claims 1-4,
characterised in that the scraping face (4) on each segment is connected to the supporting structure (3) by a resilient metal spring having a spring constant (k1).
6. A cleaning device according to claims 1-5,
characterised in that the scraping face (4) on each segment is connected to the supporting structure (3) by a fibre-reinforced elastic material having spring constant (k1).
7. A cleaning device according to claims 1-6,
characterised in that the spring constant (k) is selected so that the scraper blades have an almost ideal angle of substantially 90 degrees to the conveyor belt that is to be cleaned.
8. A cleaning device according to claims 1-7,

characterised in that two or more of the segments (1') are connected transverse to the cleaning device to a reinforcing element having a spring constant (k2).

9. A cleaning device according to claims 1-8,

5 characterised in that the whole of or parts of the body (7) of the scraper segments (1) are formed of an elastic material so that it forms the elastic attachment for the scraping face.

10. A cleaning device according to claims 1-9,

characterised in that the number of segments (1') is greater than five.

11. A cleaning device according to claims 1-9,

characterised in that the number of segments (1') is greater than eight.

12. A cleaning device according to claims 1-9,

characterised in that the number of segments (1') is greater than fifteen twelve.

13. A cleaning device according to one or more of claims 1-12,

characterised in that two or more of the segments (1') have different widths.

20 14. A cleaning device according to claims 1-13,

characterised in that the flexible material covering the scraper segments (1') is also an elastic material.

15. A cleaning device according to claims 1-14,

characterised in that the scraping face (4) is formed of or with a reinforcing material.

16. A cleaning device according to any one of the preceding claims,

characterised in that the cleaning device is mounted in a holder where at least an area of the cleaning device is fixedly connected to the holder so that the cleaning device can be bent in that there is provided one or more adjusting devices at the underside and/or the upper side of the cleaning device which push different parts of the cleaning device against the belt.

17. A cleaning device according to any one of the preceding claims,

characterised in that the cleaning device is mounted in a holder

35 where at least an area of the cleaning device is fixedly connected to the holder so that the cleaning device can be bent in that there is provided one or more adjusting

devices at one of and/or both of the long sides of the cleaning device which push different parts of the cleaning device against the belt.

18. A cleaning device according to any one of the preceding claims,
characterised in that the cleaning device is mounted in a holder
5 where at least an area of the cleaning device is fixedly connected to the holder so
that the cleaning device can be bent in that there is provided one or more adjusting
devices at one of and/or both of the long sides of the cleaning device and at the
underside and/or the upper side thereof which push different parts of the cleaning
device against the belt in two directions.

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